What is claimed is:

1. In a fluid distributing apparatus of the type having a first surface and a second surface spaced apart from one another to define an annular nozzle opening therebetween, the first surface being an irregular surface shaped so that a spacing between the first and second surfaces varies around a circumference of the annular nozzle opening to create a non-circular spray pattern of fluid exiting the nozzle opening, and a rotatable turbine located between the first and second surfaces and freely movable between the first and second surfaces, the turbine a plurality of radially extending fins each having a leading edge, a trailing edge, and a radial surface for directing the flow of fluid exiting the nozzle opening, the improvement comprising:

at least a first one of the fins having a vane extending at an angle relative to the radial surface so as to redirect the flow of fluid passing along the radial surface of the fin.

2. The improvement of claim 1 wherein the trailing edge of the first fin extends at an angle relative to a longitudinal axis of the vane so that the flow of fluid across the trailing edge is at an acute angle relative to the trailing edge.

3. The improvement of claim 2 wherein the angle of the trailing edge of the first fin is different than the angle of the trailing edge of an adjacent fin.

4. The improvement of claim 1 wherein the angle between the vane and the radial surface of the first fin is different than the angle between the vane and the radial surface of an adjacent fin.

5. The improvement of claim 1 further comprising:

means for resiliently biasing the second surface toward the first surface to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, the biasing means being isolated from the fluid flowing through and from the fluid distributing apparatus.

6. A fluid distributing apparatus, comprising:

a orifice housing defining a first surface;

a deflector plate defining a second surface, the deflector plate connected to the orifice housing such that the first surface of the orifice housing and the second surface of the deflector plate are spaced apart from one another to define an annular nozzle opening therebetween; and

a turbine located between the first and second surfaces and freely rotatable between the first and second surfaces, the turbine having a plurality of radially extending fins each having leading edge, a trailing edge, and a radial surface for directing the flow of fluid exiting the nozzle opening, at least a first one of the fins having a vane extending at an angle relative to the radial surface so as to redirect the flow of fluid passing along the radial surface of the fin.

7. The fluid distributing apparatus of claim 6 wherein the trailing edge of the first fin extends at an angle relative to a longitudinal axis of the vane so that the flow of fluid across the trailing edge is at an acute angle relative to the trailing edge.

8. The fluid distributing apparatus of claim 7 wherein the angle of the trailing edge of the first fin is different than the angle of the trailing edge of an adjacent fin.

9. The fluid distributing apparatus of claim 6 wherein the angle between the vane and the radial surface of the first fin is different than the angle between the vane and the radial surface of an adjacent fin.

10. The fluid distributing apparatus of claim 6 further comprising:

means for biasing the second surface toward the first surface to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, the biasing means being isolated from the fluid flowing through and from the fluid distributing apparatus.

11. The fluid distributing apparatus of claim 6 wherein the deflector plate is connected to the orifice housing so as to permit movement of the deflector plate relative to the orifice housing, wherein the fluid distributing apparatus further comprises a spring for resiliently biasing the second surface of the deflector plate toward the first surface of the orifice housing to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, and wherein the spring is enclosed in one of the orifice housing and the deflector plate to isolate the spring from the fluid flowing through and from the fluid distributing apparatus.

12. A fluid distributing apparatus, comprising:

a orifice housing defining a first surface;

a deflector plate defining a second surface, the deflector plate connected to the orifice housing such that the first surface of the orifice housing and the second surface of the deflector plate are spaced apart from one another to define an annular nozzle opening therebetween and such that deflector plate is able to move relative to the orifice housing; and

a turbine located between the first and second surfaces and freely rotatable between the first and second surfaces, the turbine having a plurality of radially extending fins each having a leading edge, a trailing edge, and a radial surface for directing the flow of fluid exiting the nozzle opening; and

a spring for resiliently biasing the second surface of the deflector plate toward the first surface of the orifice housing to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, the spring enclosed in one of the orifice housing and the deflector plate to isolate the spring from the fluid flowing through and from the fluid distributing apparatus.

13. In a fluid distributing apparatus of the type having a first surface and a second surface spaced apart from one another to define an annular nozzle opening therebetween, the first surface being an irregular surface shaped so that a spacing between the first and second surfaces varies around a circumference of the annular nozzle opening to create a non-circular spray pattern of fluid exiting the nozzle opening, and a rotatable turbine located between the first and second surfaces and freely movable between the first and second surfaces, the turbine having a plurality of radially extending

fins each having a leading edge, a trailing edge, and a radial surface for directing the flow of fluid exiting the nozzle opening,, the improvement comprising:

the radial surface of at least a first fin having an upper section and a lower section, the upper section having a configuration that is different than a configuration of the lower section such that the upper section and lower section of the first fin direct fluid exiting the nozzle opening in different directions.

14. The improvement of claim 13 wherein the configuration of the upper section of the first fin is different than the configuration of an upper section of the fin of an adjacent fin.

15. The improvement of claim 13 wherein the configuration of the lower section of the first fin is different than the configuration of a lower section of the fin of an adjacent fin.

16. The improvement of claim 13 wherein the configuration of the upper section of the first fin is different than the configuration of an upper section of the fin of an adjacent fin, and wherein the configuration of the lower section of the first fin is different than the configuration of a lower section of the fin of an adjacent fin.

17. The improvement of claim 13 further comprising:

means for resiliently biasing the second surface toward the first surface to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, the biasing means being isolated from the fluid flowing through and from the fluid distributing apparatus.

18. A fluid distributing apparatus, comprising:

a orifice housing defining a first surface;

a deflector plate defining a second surface, the deflector plate connected to the orifice housing such that the first surface of the orifice housing and the second surface of the deflector plate are spaced apart from one another to define an annular nozzle opening therebetween; and

a turbine located between the first and second surfaces and freely rotatable between the first and second surfaces, the turbine having a plurality of radially extending fins each having a leading edge, a trailing edge, and a radial surface for directing the flow of fluid exiting the nozzle opening, the radial surface of at least a first one of the fins having an upper section and a lower section, the upper section having a configuration that is different than a configuration of the lower section such that the upper section and lower section of the first fin direct fluid exiting the nozzle opening in different directions.

19. The fluid distributing apparatus of claim 18 wherein the configuration of the upper section of the first fin is different than the configuration of an upper section of the fin of an adjacent fin.

20. The fluid distributing apparatus of claim 18 wherein the configuration of the lower section of the first fin is different than the configuration of a lower section of the fin of an adjacent fin.

21. The fluid distributing apparatus of claim 18 wherein the configuration of the upper section of the first fin is different than the configuration of an upper section of the fin of an adjacent fin, and wherein the configuration of the lower section of the first fin is different than the configuration of a lower section of the fin of an adjacent fin.

22. The fluid distributing apparatus of claim 18 further comprising:

means for resiliently biasing the second surface toward the first surface to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, the biasing means being isolated from the fluid flowing through and from the fluid distributing apparatus.

23. The fluid distributing apparatus of claim 18 wherein deflector plate is connected to the orifice housing so as to permit movement of the deflector plate relative to the orifice housing, wherein the fluid distributing apparatus further comprises a spring for resiliently biasing the second surface of the deflector plate toward the first surface of the orifice housing to allow the spacing between the first and second surfaces to increase in response to an increase in fluid pressure in the annular nozzle opening, and wherein the spring is enclosed in one of the orifice housing and the deflector plate to isolate the spring from the fluid flowing through and from the fluid distributing apparatus.